



# Tailgate Safety Talk

## Information You Can Use to Prevent Accidents & Injuries

### Is Fiberglass A Health Hazard?

Most everyone has heard about the association between lung cancer and asbestos. Since some forms of asbestos are similar in appearance to fiberglass fibers, many people wonder if handling fiber-glass could also result in the development of cancer or other serious health hazards.

Scientists have made over 400 studies of fiberglass in an attempt to answer this question. The conclusion is that it will not, because its properties are very different from asbestos. OSHA confirmed these findings in 1991 when it decided to regulate fiberglass as a nuisance dust, and not as a cancer causing agent. The state of California, nevertheless, still requires that fiberglass be labeled as a *potential* cancer causing agent.

The principal difference between glass fibers and asbestos fibers is their size and the way the fibers break down. Glass fibers are cylindrical *single* fibers that can never split lengthwise; they only break across the fiber. As they break, they form tiny fragments that no longer have the properties of a fiber.

Asbestos fibers, on the other hand, are always present as bundles, never as a single fiber. Asbestos fibers fracture only *lengthwise* when the bundles break apart, releasing thousands of long tiny fibers. When these are inhaled, they become trapped in the small sacs of the lungs known as alveoli. Because asbestos fibers are long, sharp, and irritating to lung tissue, the alveoli close up and trap them in the lungs. This eventually results in the lungs becoming hard, fibrous and inelastic. Over time, the continued irritations cause cancer in some individuals.

Because fiberglass breaks *across* the fiber to form tiny fragments, the tissue response is very different when these particles are inhaled. When fiberglass fragments are inhaled and deposited in the small air sacs of the lung, the alveoli do not close up and trap the particles. The particles are expelled from the alveoli and there is a rapid clearance of fiberglass dust particles from the lungs.

However, fiberglass presents other problems-such as irritations of the eyes, skin, or respiratory tract. The mechanical action of the fibers scraping against skin may cause a condition known as dermatitis. To protect yourself, wear long sleeve shirts and pants to keep the fibers off your skin, and wear clean clothes every day. Gloves and eye protection may also help. Use soap and warm water to remove any fibers that you do get on your skin. Dust is produced when mat or cloth is rolled out, where chopper guns are used, and in finishing operations where flashing is removed or sanding occurs. So always wear a dust mask in these areas to help avoid inhaling glass fibers.

**Working with fiberglass material should not be dangerous *if* you are properly trained, and *if* you use appropriate protective equipment.  
Be sure to do so!**

*Users of this tailgate talk are advised to determine the suitability of the information as it applies to local situations and work practices and its conformance with applicable laws and regulations.*